

**Current Process Improvement and Project Services (PIPS)
Statement of Work (SOW)**

1.0 Introduction

The contractor shall provide services to the Engineering Directorate of the NASA/Lyndon B. Johnson Space Center (JSC) by: 1) identifying and implementing process improvements and 2) providing project engineering services. The process improvements and project services will be provided to the Engineering Directorate as outlined in the task orders. The Government will provide appropriate workspace and necessary computer and office equipment at JSC for the contractor.

2.0 Requirements

2.1 Process Improvements

The contractor shall develop approaches and strategies that further ongoing activities and enable management and staff to employ mission and process improvement methods to gain efficiencies, synergies, increase effectiveness, reduce risks, and reduce costs. In order to provide process improvements to the Directorate and Divisions/Offices, the contractor shall perform the following activities:

a) The contractor shall assess and develop business and project management processes using system engineering practices including but not limited to reliability, availability, system security, and stability while meeting the challenges of cost, schedule, and performance requirements within acceptable levels of risk. The contractor shall address how processes are currently performed and how future improvements may be implemented in conjunction with NPR 7120 and JPR 7120. Specifically the contractor shall:

- i. Participate in meetings, brainstorming sessions, and various process improvement forums of discussion.
- ii. Develop and document candidate process improvement goals and initiatives.
- iii. Develop and document detailed plans for each initiative and discuss with Directorate or Division/Office management.

b) The contractor shall provide to the Directorate or Division/Office management recommendations related to the process improvements, and also ensure consistency with NPR 7120, EA-WI-023 and other applicable requirements. The contractor shall, at a minimum, take the following options into consideration:

- i. Commercial-Off-the-Shelf (COTS) products
- ii. Center-level implementations
- iii. In-house development solutions

c) The contractor shall identify problem areas in processes, work to mitigate those problems, provide recommendations for the complete systems' development efforts, resolve systems' problems using new

technology, and complete tasks within estimated timeframes and task order funding constraints.

d) The contractor shall provide design solution concepts to the Directorate/division(s) office(s).

2.2 Project Services

The contractor shall assist in the development and organization of project data throughout the project's life cycle processes as defined in documents including, but not limited to NPR 7120, EA-WI-023, and EV-010. These documents define the Program and Project Management Processes and Requirements to assure proper design practices, quality products and records, and consistent methods during the project's life cycle. The project data functions include, but are not limited to, the following:

- i. Retain and organize the data produced (including but not limited to documents, drawings, reports, white papers, instructions, photographs) as defined in EV-010 and EA-WI-023 to ensure a consistent method for preparation, approval, issue, revision, tracking and maintenance of all documentation for the Engineering Directorate.
- ii. Create new and update existing project web page content.
- iii. Support major review activities (including but not limited to assisting in presentations, updating and gathering documentation, Review Item Disposition (RID) response support through the life cycle major review period).

The objective is to assist in the development and provide documentation for projects that will increase efficiencies and synergies within the directorate, but at the same time assure proper design practices, quality products and documentation.

3.0 Applicable Documents:

The following documents are applicable for the work performed under this SOW. All documents are available via the Engineering Directorate or the Master Documents List of the Quality Management System (QMS). The contractor shall comply with the most recent revisions.

- NPD 8800.14, Policy for Real Property Management
- NPR 1600.1, NASA Security Program Procedural Requirements
- NPR 2810.1A Security of Information Technology
- NPR 6000.1, Requirements for Packaging, Handling, and Transportation for Aeronautical and Space Systems, Equipment, and Associated Components
- NPR 7120, NASA Program and Project Management Processes and Requirements
- NPR 8831.2, Facility Maintenance Management

- NPR 8621.1B, NASA Procedural Requirement for Mishap and Close Call Reporting, Investigating, and Recordkeeping
- JPR 1700.1, JSC Safety and Health Handbook
- JPR 7120.3, Project Management: Systems Engineering and Project Control Processes and Requirements
- JSC 17773, Preparing of Hazard Analyses for JSC Ground Operations.
- JSC 27671, Configuration Control Panel (CCP) Work Instruction
- JSC 27760, Engineering Directorate Project Home Page Requirements Document
- JSC 27827, GFE Configuration Management Plan
- JSC 29546, Software Development Plan for the Avionic Systems Division Automation Activities.
- JSC 62512, Avionic Systems Division Configuration Management Plan
- JSC 63328, ACB Application Development Standards
- JSC 63576, Avionic Systems Division (ASD) Tools/Business/Projects Task Support Plan.
- EA-WI-023, Project Management of GFE Flight Projects
- EA-WI-025, GFE Flight Project Software and Firmware Development
- EA-WI-027, Configuration Management Requirements
- EA-WI-037, Review Item Discrepancy Process
- EV-008, Design, Development, Test and Evaluation of Avionics Flight Hardware Work Instruction
- EV-010, EV Documentation Control Work Instruction
- EV-036, GFE Problem Reporting and Corrective Action (PRACA) Failure Investigation Action Report (FIAR) and the Quality Assurance Record Center (QARC) Discrepancy Report (DR)

4.0 Deliverables

Deliverables shall be specified in the Task Orders and the DRD's.